10/519,931

FILE 'HOME' ENTERED AT 12:16:11 ON 10 OCT 2007

=> file reg
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 12:16:40 ON 10 OCT 2007
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STRUCTURE FILE UPDATES: 9 OCT 2007 HIGHEST RN 949922-95-6
DICTIONARY FILE UPDATES: 9 OCT 2007 HIGHEST RN 949922-95-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

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experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

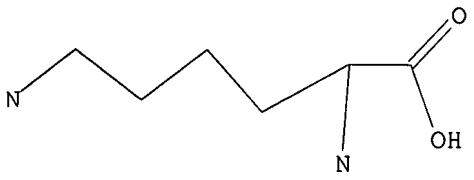
http://www.cas.org/support/stngen/stndoc/properties.html

*** YOU HAVE NEW MAIL ***

=>
Uploading C:\Program Files\Stnexp\Queries\10519931.str

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full
FULL SEARCH INITIATED 12:16:58 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 469999 TO ITERATE

100.0% PROCESSED 469999 ITERATIONS 83880 ANSWERS
SEARCH TIME: 00.00.06

L2 83880 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.10	172.31

FILE 'CAPLUS' ENTERED AT 12:17:10 ON 10 OCT 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 10 Oct 2007 VOL 147 ISS 16
FILE LAST UPDATED: 9 Oct 2007 (20071009/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

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=> s l2
L3       107468 L2

=> s l3 and fmoc
           6432 FMOC
L4         1286 L3 AND FMOC

=> s l4 and PNA
           6518 PNA
L5           27 L4 AND PNA

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6           27 DUP REM L5 (0 DUPLICATES REMOVED)

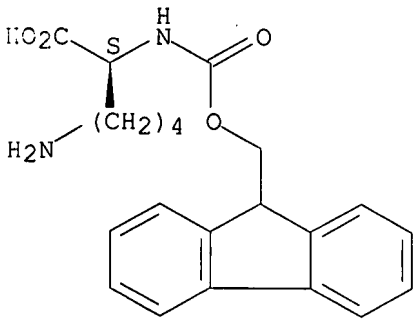
=> s l6 and 2003/py
L7           27 S L6
        1265272 2003/PY
L8            7 L7 AND 2003/PY

=> d l8 bib abs hitstr 1-7

L8   ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2003:829485  CAPLUS
DN   140:111672
TI   Synthesis of Radiometal-Labeled and Fluorescent Cell-Permeating Peptide-
     PNA Conjugates for Targeting the bcl-2 Proto-oncogene
AU   Gallazzi, Fabio; Wang, Yi; Jia, Fang; Shenoy, Nalini; Landon, Linda A.;
     Hannink, Mark; Lever, Susan Z.; Lewis, Michael R.
CS   Molecular Biology Program, Department of Veterinary Medicine and Surgery,
     Department of Chemistry, Department of Biochemistry, University of
     Missouri- Columbia, Columbia, MO, 65211, USA
SO   Bioconjugate Chemistry (2003), 14(6), 1083-1095
     CODEN: BCCHES; ISSN: 1043-1802
```

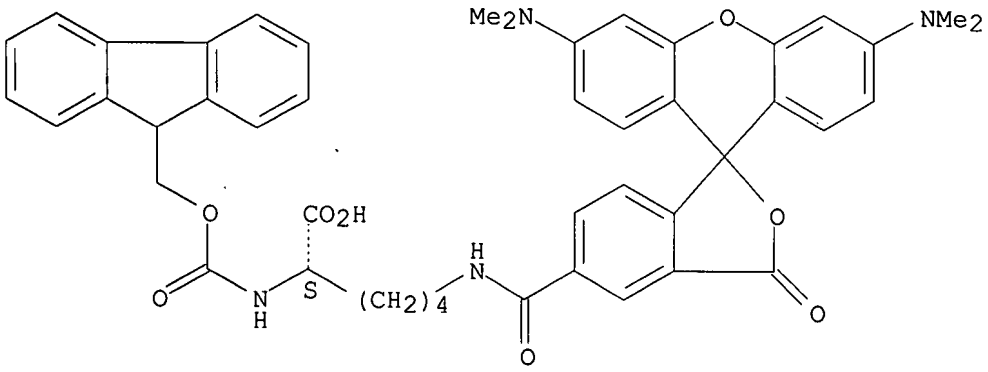
PB American Chemical Society
DT Journal
LA English
OS CASREACT 140:111672
AB The B-cell lymphoma/leukemia-2 (bcl-2) proto-oncogene has been associated with the transformation of benign lesions to malignancy, disease progression, poor prognosis, reduced survival, and development of resistance to radiation and chemotherapy in many types of cancer. The objective of this work was to synthesize an antisense peptide nucleic acid (PNA) complementary to the first six codons of the bcl-2 open reading frame, conjugated to a membrane-permeating peptide for intracellular delivery, and modified with a bifunctional chelating agent for targeting imaging and therapeutic radiometals to tumors overexpressing bcl-2. Four peptide-PNA constructs were synthesized by a combination of manual and automated stepwise elongation techniques, including bcl-2 antisense conjugates and nonsense conjugates with no complementarity to any known mammalian gene or DNA sequence. The PNA sequences were synthesized manually by solid-phase 9-fluorenylmethoxycarbonyl (Fmoc) techniques. Then a fully protected lysine monomer, modified with 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid (DOTA) for radiometal chelation, was coupled manually to each PNA sequence. Synthesis of the DOTA-PNA conjugates was followed by automated elongation with a peptide sequence (PTD-4-glycine, PTD-4-G), known to mediate cellular internalization of impermeable effector mols., or its retro-inverso analog (ri-PTD-4-G). Preparation of the four conjugates required an innovative synthetic strategy, using mild acid conditions to generate hydrophobic, partially deprotected intermediates. These intermediates were purified by semipreparative reversed-phase HPLC and completely deprotected to yield pure peptide-PNA conjugates in 6% to 9% overall yield. Using modifications of this synthetic strategy, the ri-PTD-4-G conjugate of bcl-2 antisense PNA was prepared using a lysine derivative of tetramethylrhodamine (TMR) for fluorescence microscopy. Plasma stability studies showed that 111In-DOTA-labeled ri-PTD-4-G-anti-bcl-2 PNA was stable for 168 h at 37 °C, unlike the conjugate containing the parent peptide sequence. Scanning confocal fluorescence microscopy of TMR-labeled ri-PTD-4-G-anti-bcl-2 PNA in Raji lymphoma cells demonstrated that the retro-inverso peptide was active in membrane permeation and mediated cellular internalization of the antisense PNA into the cytoplasm, where high concns. of bcl-2 mRNA are expected to be present.
IT 105047-45-8 635732-47-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of radiometal-labeled and fluorescent cell-permeating peptide-PNA conjugates for targeting the bcl-2 proto-oncogene)
RN 105047-45-8 CAPLUS
CN L-Lysine, N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 635732-47-7 CAPLUS
CN L-Lysine, N6-[[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl]carbonyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.

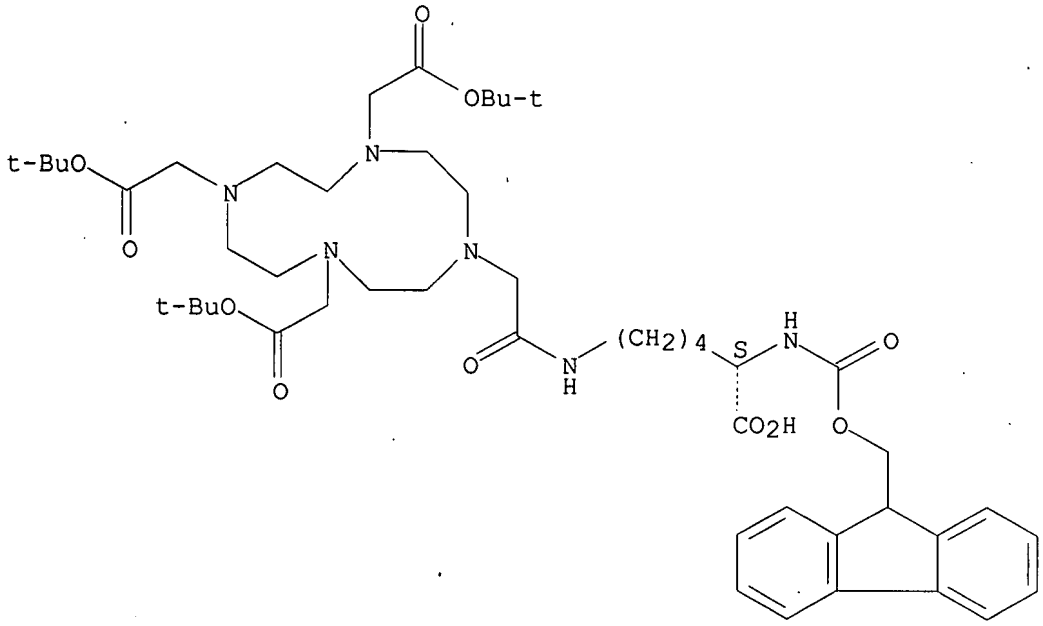


RN 635732-44-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of radiometal-labeled and fluorescent cell-permeating peptide-PNA conjugates for targeting the bcl-2 proto-oncogene)
RN 635732-44-4 CAPLUS
CN 1,4,7,10-Tetraazacyclododecane-1,4,7-triacetic acid, 10-[2-[[(5S)-5-carboxy-5-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]pentyl]amino]-2-oxoethyl]-, α,α',α''-tris(1,1-dimethylethyl) ester, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

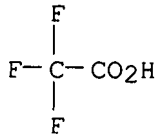
CRN 479081-06-6
CMF C49 H74 N6 O11

Absolute stereochemistry.



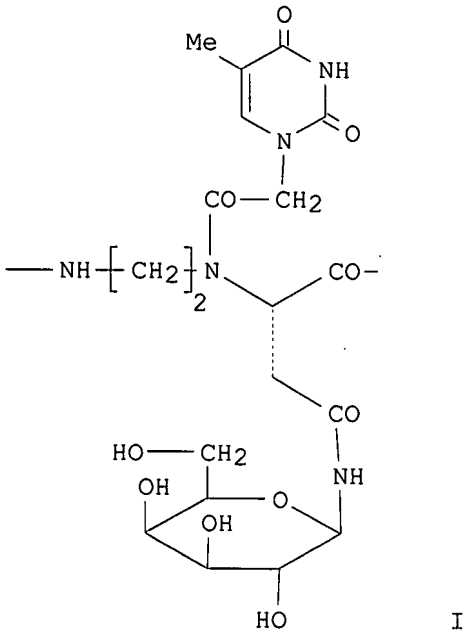
CM 2

CRN 76-05-1
CMF C2 H F3 O2



RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:679388 CAPLUS
DN 139:381726
TI Modulation of the Pharmacokinetic Properties of PNA: Preparation of Galactosyl, Mannosyl, Fucosyl, N-Acetylgalactosaminyl, and N-Acetylglucosaminyl Derivatives of Aminoethylglycine Peptide Nucleic Acid Monomers and Their Incorporation into PNA Oligomers
AU Hamzavi, Ramin; Dolle, Frederic; Tavitian, Bertrand; Dahl, Otto; Nielsen, Peter E.
CS Center for Biomolecular Recognition, Department of Medical Biochemistry and Genetics, University of Copenhagen, Copenhagen, DK-2200, Den.
SO Bioconjugate Chemistry (2003), 14(5), 941-954
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
CC CASREACT 139:381726
GI



I

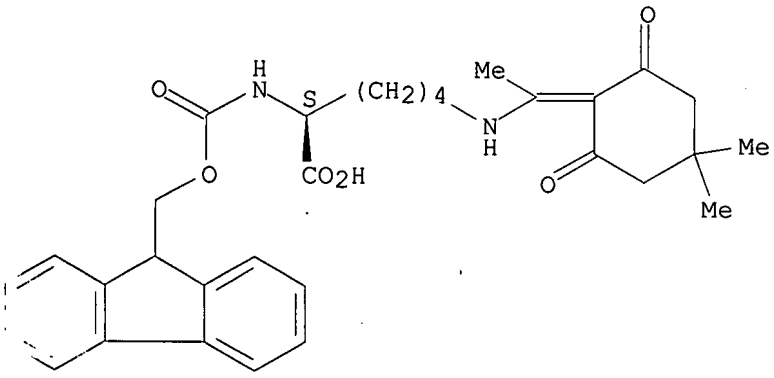
AB A series of N-(2-aminoethyl)-α-amino acid thymine peptide nucleic acid (PNA) monomers bearing glycosylated side chains in the

α-amino acid position (e.g, I) have been synthesized. These include PNA monomers where glycine has been replaced by serine and threonine (O-glycosylated), derivs. of lysine and nor-alanine (C-glycosylated), and amide derivs. of aspartic acid (N-glycosylated). The Boc and Fmoc derivs. of these monomers were used for incorporation in PNA oligomers. Twelve PNA decamers containing the glycosylated units in one, two, or three positions were prepared, and the thermal stability (Tm) of their complexes with a complementary RNA was determined Incorporation of the glycosyl monomers reduced the duplex stability by 0-6° C per substitution. A cysteine was attached to the amino terminus of eight of the PNA decamers (Cys-CTCATACTCT-NH2) for easy conjugation to a [18F]radiolabeled N-(4-fluorobenzyl)-2-bromoacetamide. The in vivo biodistribution of these PNA oligomers was determined in rat 2 h after i.v. administration. Most of the radioactivity was recovered in the kidneys and in the urine. However, N-acetylgalactosamine (and to a lesser extent galactose and mannose)-modified PNAs were effectively targeting the liver (40-fold over unmodified PNA). Thus, the pharmacodistribution in rats of PNA oligomers can be profoundly changed by glycosylation. These results could be of great significance for PNA drug development, as they should allow modulation and fine-tuning of the pharmacokinetic profile of a drug lead.

150629-67-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of glycosylated monomers for PNA synthesis and their effect on PNA/RNA hybridization or PNA biodistribution)

RN 150629-67-7 CAPLUS
CN L-Lysine, N6-[1-(4,4-dimethyl-2,6-dioxocyclohexylidene)ethyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

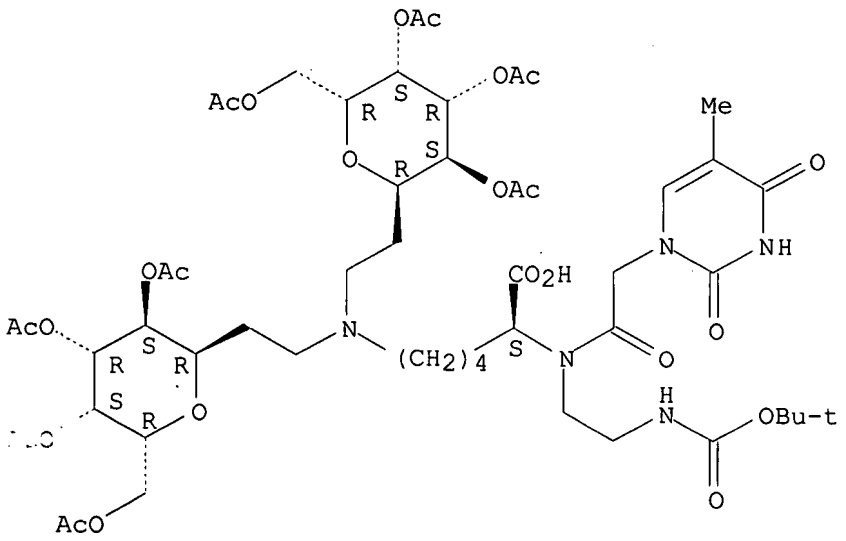
Absolute stereochemistry.



IT 612491-20-0P 612491-21-1P 612491-22-2P
612491-23-3P 612491-24-4P 612491-25-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of glycosylated monomers for PNA synthesis and their effect on PNA/RNA hybridization or PNA biodistribution)

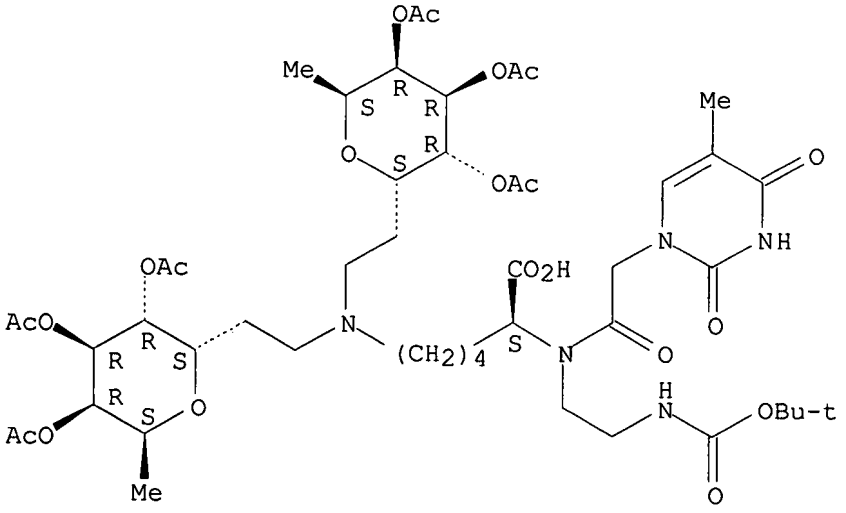
RN 612491-20-0 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N6,N6-bis(1,3,4,5-tetra-O-acetyl-2,6-anhydro-7,8-dideoxy-D-glycero-L-galacto-octitol-8-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



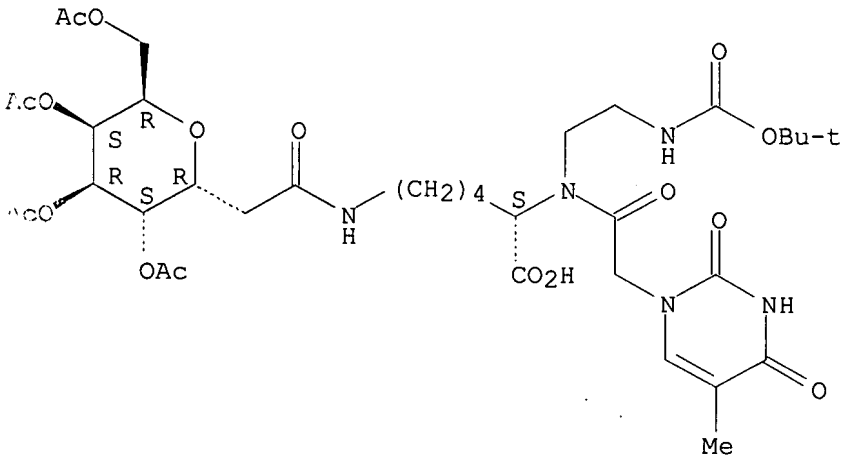
RN 612491-21-1 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N6,N6-bis(3,4,5-tri-O-acetyl-2,6-anhydro-1,7,8-trideoxy-L-glycero-D-galacto-octitol-8-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



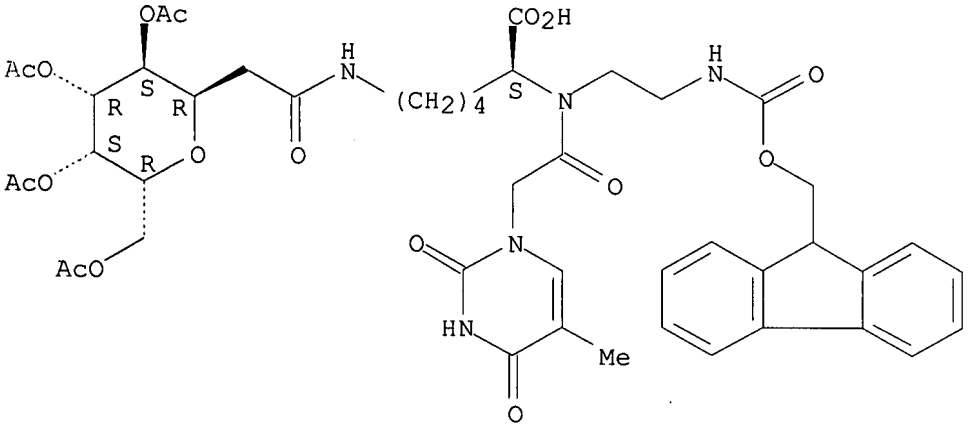
RN 612491-22-2 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N6-(4,5,6,8-tetra-O-acetyl-3,7-anhydro-2-deoxy-D-glycero-L-gluco-octonoyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



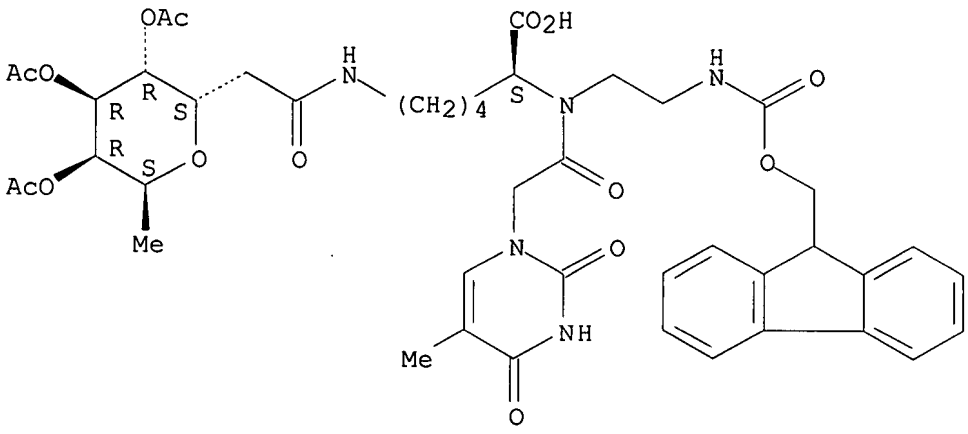
RN 612491-23-3 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]ethyl]-N6-(4,5,6,8-tetra-O-acetyl-3,7-anhydro-2-deoxy-D-glycero-L-gluco-octonoyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 612491-24-4 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]ethyl]-N6-(4,5,6-tri-O-acetyl-3,7-anhydro-2,8-dideoxy-L-glycero-D-gluco-octonoyl)- (9CI) (CA INDEX NAME)

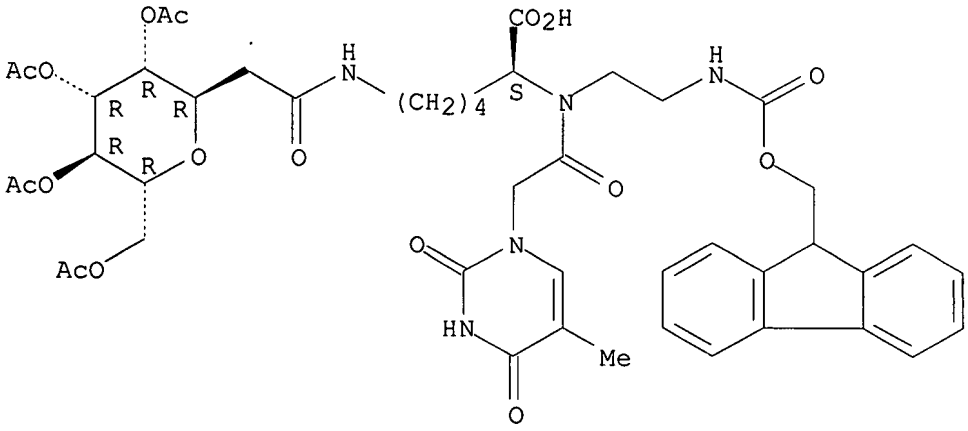
Absolute stereochemistry.



612491-25-5 CAPLUS

CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]ethyl]-N6-(4,5,6,8-tetra-O-acetyl-3,7-anhydro-2-deoxy-D-glycero-D-talo-octonoyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

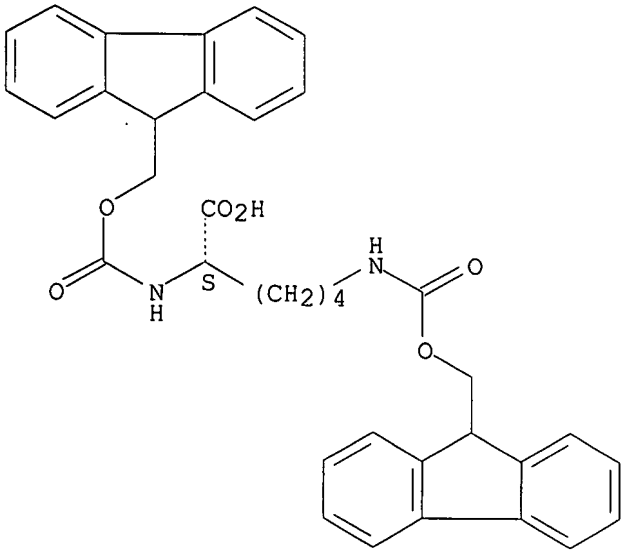
L8 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:521324 CAPLUS
DN 139:292469
TI Synthesis and DNA binding properties of terminally modified peptide nucleic acids
AU Mokhir, Andriy; Zohm, Burkhard; Fuessl, Andreas; Kraemer, Roland
CS Anorganisch-Chemisches Institut, Karl-Ruprechts University of Heidelberg, Heidelberg, 69120, Germany
SO Bioorganic & Medicinal Chemistry Letters (2003), 13(15), 2489-2492
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science B.V.
DT Journal
LA English
CC CASREACT 139:292469
AB PNAs with terminal modifications of varying structure and charge were synthesized and their binding to DNA was studied. A variation in thermal stability of 19.8° C has been observed between the least and the most stable PNA-DNA duplexes. The most stable duplex melts

7.7° C higher than the duplex of the corresponding non-modified PNA and complementary DNA. It has been shown that sequence fidelity of the PNA conjugate having the highest DNA affinity is significantly better than that of non-modified PNA. The results obtained can be used for the design of PNA probes, whose binding to DNA is sequence independent.

TT 78081-87-5 146982-27-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and DNA binding properties of terminally modified peptide nucleic acids)

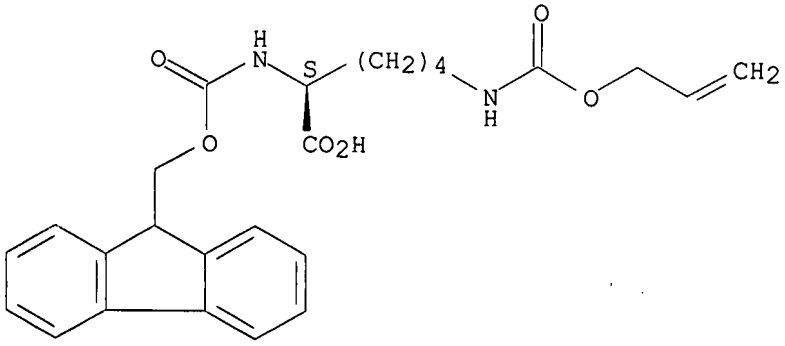
RN 78081-87-5 CAPLUS
CN L-Lysine, N2,N6-bis[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 146982-27-6 CAPLUS
CN L-Lysine, N2-[(9H-fluoren-9-ylmethoxy)carbonyl]-N6-[(2-propen-1-yloxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:246878 CAPLUS
DN 139:101403
TI Fast, solid-phase synthesis of chiral peptide nucleic acids with a high optical purity by a submonomeric strategy

AU Sforza, Stefano; Tedeschi, Tullia; Corradini, Roberto; Ciavardelli, Domenico; Dossena, Arnaldo; Marchelli, Rosangela

CS Dipartimento di Chimica Organica ed Industriale, Universita di Parma, Parma, 43100, Italy

SO European Journal of Organic Chemistry (2003), (6), 1056-1063
CODEN: EJOCFK; ISSN: 1434-193X

PB Wiley-VCH Verlag GmbH & Co. KGaA

DT Journal

LA English

OS CASREACT 139:101403

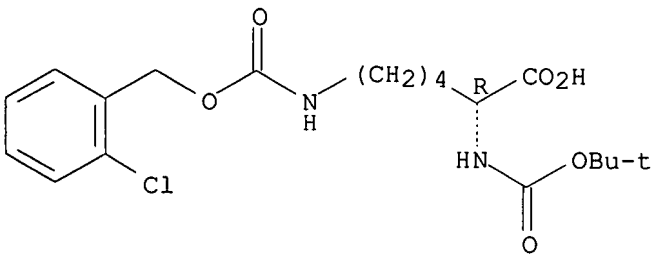
AB The solid-phase synthesis of chiral peptide nucleic acids (PNAs) usually results in partial epimerization of the products, since the α-nitrogen atom of the amino acid is involved in an amidic bond. It is also time-consuming, since all the chiral monomers bearing different nucleobases have to be independently synthesized. In order to prevent racemization and to speed up the synthetic procedure we adopted a submonomeric approach by using a solid-phase, Boc-based (Boc = tert-butoxycarbonyl) PNA synthesis in which the chiral backbone orthogonally Nα- Fmoc-protected (submonomer) (Fmoc = 9-fluorenylmethyloxycarbonyl) was first linked to the growing chain on the resin, followed by Fmoc-deprotection and derivatization with the carboxymethylnucleobase. The submonomer bearing the D-lysine residue was designed by protecting the Nα-(aminoethyl)amino acid moiety with an Fmoc protecting group, compatible with standard Boc chemical, and with the use of an MBHA-PS resin, normally employed for PNA synthesis. Different synthetic pathways towards the desired submonomer were studied by using the amino acid D-lysine as a chiral synthon, obtaining a fast method leading to a high yield and an excellent enantiomeric excess of the submonomer. The solid-phase submonomeric reaction conditions were optimized for the synthesis of a thyminyl PNA dimer and then used to synthesize two different chiral PNAs. In this way two advantages were obtained: a lower degree of racemization in the coupling step during the solid-phase synthesis and the possibility of using the same submonomer for every different nucleobase. All the D-lysine-based chiral PNAs were obtained in good yields and, as compared with PNAs synthesized by other coupling methods, showed the highest optical purity reported so far.

IT 57096-11-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(asym. solid-phase synthesis of D-lysine-based chiral peptide nucleic acids with by submonomeric strategy)

RN 57096-11-4 CAPLUS

CN D-Lysine, N6-[[(2-chlorophenyl)methoxy]carbonyl]-N2-[(1,1-dimethylethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.

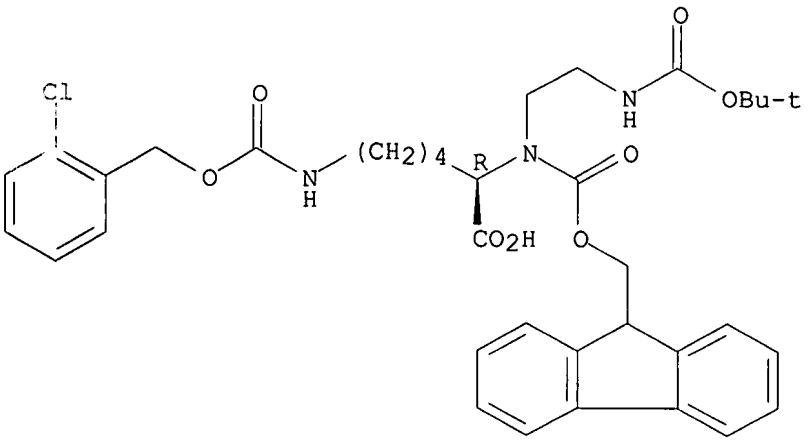


IT 548490-53-5P 548490-54-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(asym. solid-phase synthesis of D-lysine-based chiral peptide nucleic acids with by submonomeric strategy)

RN 548490-53-5 CAPLUS

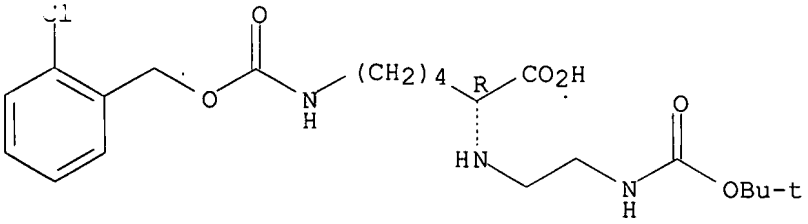
CN 13-Oxa-2,8,11-triazapentadecanoic acid, 7-carboxy-8-[(9H-fluoren-9-ylmethoxy)carbonyl]-14,14-dimethyl-12-oxo-, 1-[(2-chlorophenyl)methyl] ester, (7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 548490-54-6 CAPLUS
CN 13-Oxa-2,8,11-triazapentadecanoic acid, 7-carboxy-14,14-dimethyl-12-oxo-, 1-[(2-chlorophenyl)methyl] ester, (7R)- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:181001 CAPLUS
DN 136:242895
TI Molecular beacons based on peptide nucleic acid probes and their preparation and uses
IN Coull, James M.; Gildea, Brian D.; Hyldig-Nielsen, Jens J.
PA Boston Probes, Inc., USA
SO U.S., 54 pp., Cont.-in-part of U.S. Ser. No. 958,532, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6355421	B1	20020312	US 1998-179298	19981027
	US 2003036059	A1	20030220	US 2001-888341	20010622 <--
	US 6528267	B2	20030304		
	US 2003232327	A1	20031218	US 2003-376559	20030228 <--
	US 6949343	B2	20050927		
PRAI	US 1997-958532	B2	19971027		
	US 1998-179298	A3	19981027		

US 2001-888341 A1 20010622

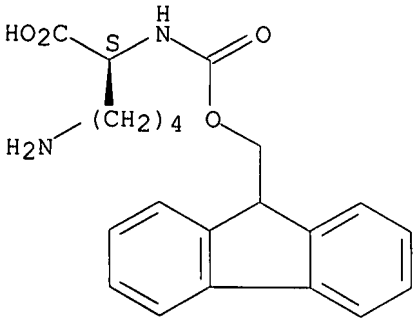
AB This invention is directed to methods, kits and compns. pertaining to PNA Mol. Beacons. PNA Mol. Beacons comprise self-complementary arm segments and flexible linkages which promote intramol. or intermol. interactions. In the absence of a target sequence, PNA Mol. Beacons facilitate efficient energy transfer between the linked donor and acceptor moieties of the probe. Upon hybridization of the probe to a target sequence, there is a measurable change in at least one property of at least one donor or acceptor moiety of the probe which can be used to detect, identify or quantitate the target sequence in a sample. Synthesis of FRET dye pair-labeled PNAs is described. Optimization expts. for hybridization with PNA mol. probes are described.

IT 105047-45-8P, N-α-(Fmoc)-N-ε-(NH2)-L-Lysine-OH 146998-27-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of; mol. beacons based on peptide nucleic acid probes and their preparation and uses)

RN 105047-45-8 CAPLUS

CN L-Lysine, N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

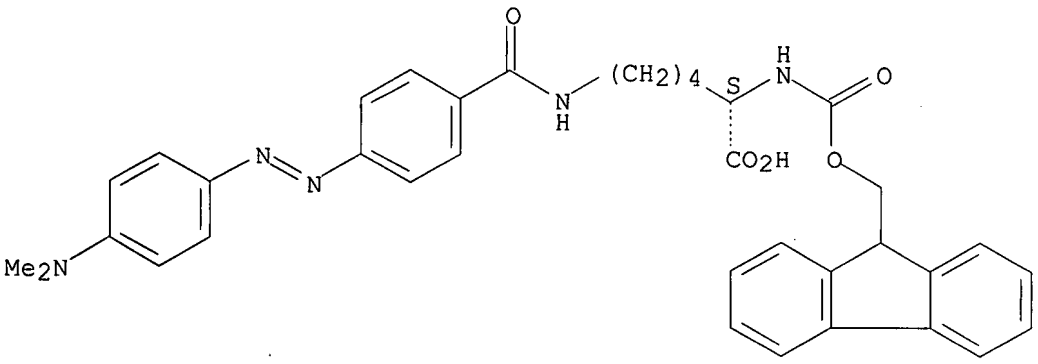
Absolute stereochemistry.



RN 146998-27-8 CAPLUS

CN L-Lysine, N6-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

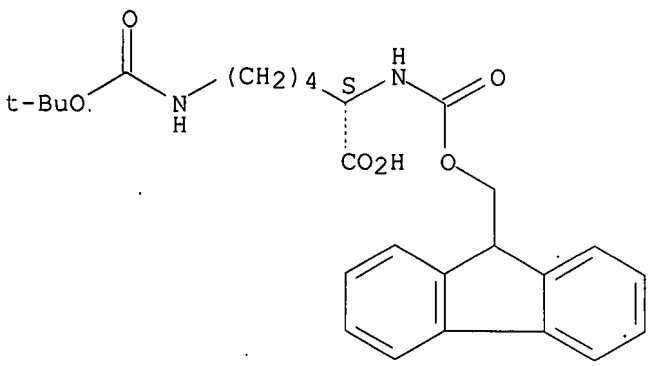


IT 71989-26-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactions of; mol. beacons based on peptide nucleic acid probes and their preparation and uses)

71989-26-9 CAPLUS

CN L-Lysine, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 154 THERE ARE 154 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:923814 CAPLUS
DN 136:54025
TI Preparation of peptide nucleoside derivatives as antisense molecules
IN Inoue, Yoshihisa; Wada, Takehiko
PA Japan Science and Technology Corporation, Japan
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001096355	A1	20011220	WO 2001-JP5011	20010613
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1295891	A1	20030326	EP 2001-938631	20010613 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2003208050	A1	20031106	US 2002-311048	20021212 <--
	US 6872809	B2	20050329		
PRAI	JP 2000-177428	A	20000613		
	WO 2001-JP5011	W	20010613		

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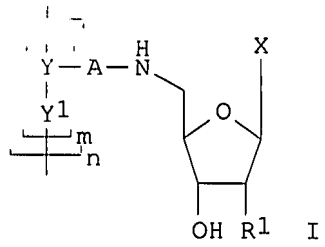


AB Peptide nucleoside derivs. (peptide nucleic acid, PNA)

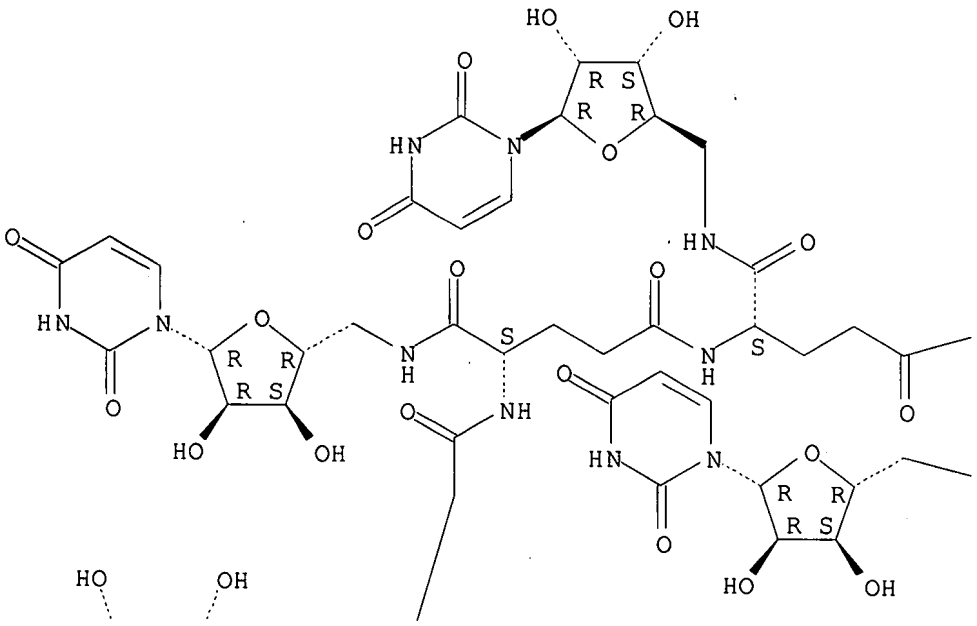
represented by the following general formula [I; wherein Xs are the same or different and represent pyrimidine, purine nucleic acid base or derivative(s) thereof; Y and Y' are the same or different and represent at least one amino acid or amino acid derivative selected from the group consisting of serine, ornithine, aspartic acid, glutamic acid, lysine, arginine, cysteine, δ-hydroxylysine, N-aminoethylglycine, N-aminoethylserine, N-aminoethyllysine, N-aminoethylornithine, N-aminoethylaspartic acid, N-aminoethylglutamic acid, homoglutamic acid, β-thiocarbonylaspartic acid, γ-thiocarbonylglutamic acid and δ-thiocarbonylhomoglutamic acid; R1 represents hydrogen or hydroxy; A represents a single bond, carbonyl or thiocarbonyl; m is an integer of from 0 to 5; and n is an integer of from 1 to 100.] are prepared These compds. exhibit base specific recognition of nucleic acid base sequences with high affinity than natural nucleic acids and are not hydrolyzed easily by enzymes in vivo and useful as antisense mols. for gene therapy of cancer or genetic diseases (no data). They can also irreversibly control the on-off switching of gene expression from anti to syn or syn to anti direction by the influence of pH, light, temperature, or concentration or presence of alkaline earth or transition metal or sugar. Thus, 0.454 g pentachlorophenyl trichloroacetate and 0.174 mL diisopropylethylamine were added to a solution of 0.129 g poly(L-glutamine) in 20 mL DMF at 0° with stirring, and after 1 h treated with 0.267 g 5'-amino-5'-deoxyuridine, and heated at 60° for 10 h to give 0.314 g poly[Nγ-(5'-deoxy-5'-aminouracyl)-L-glutamine].

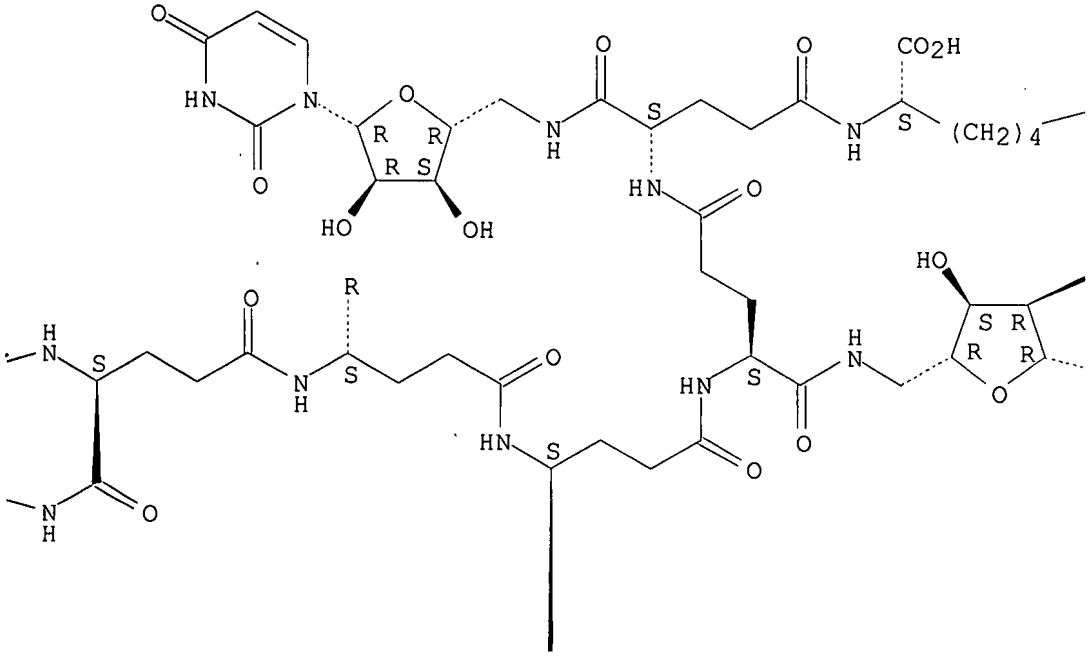
IT 292616-42-3P 380911-88-6P 380911-92-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of peptide nucleoside derivs. as antisense mols. for gene therapy of cancer or genetic diseases)

RN 292616-42-3 CAPLUS

CN L-Lysine, N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.





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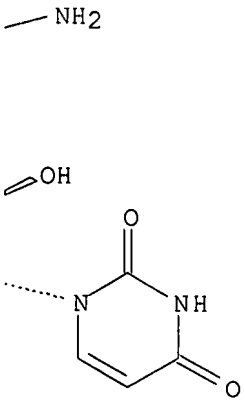

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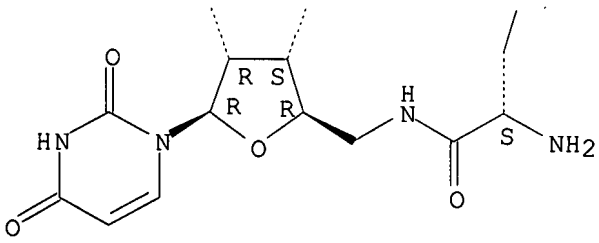

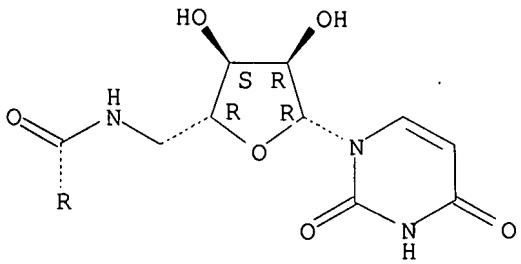

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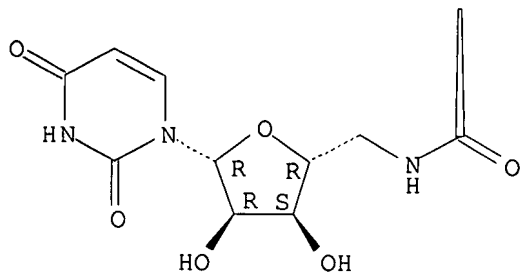
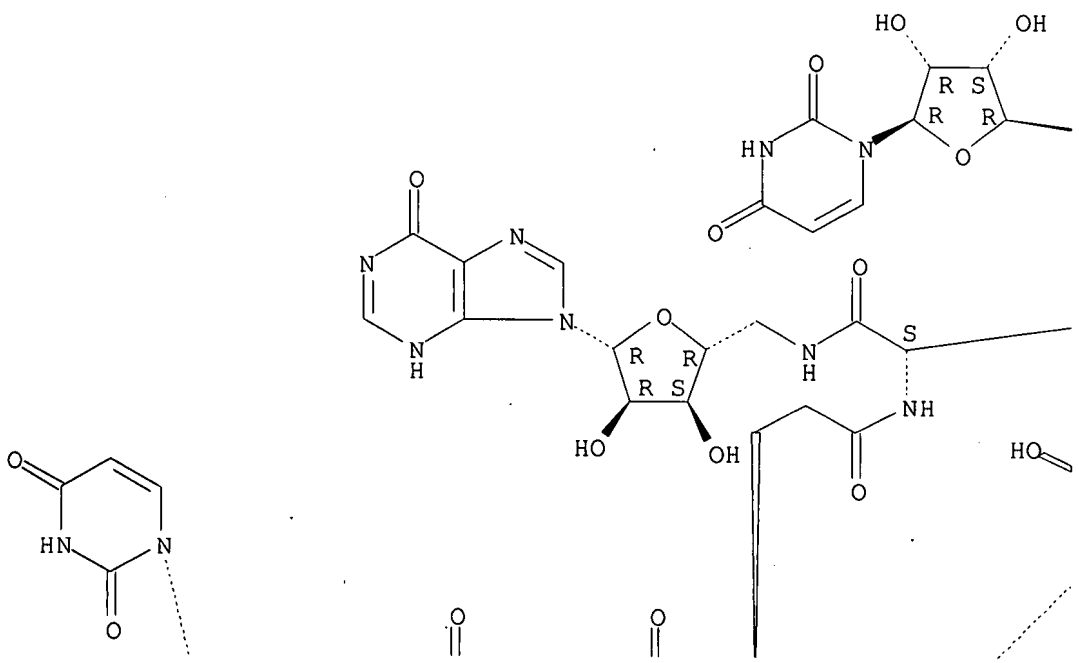
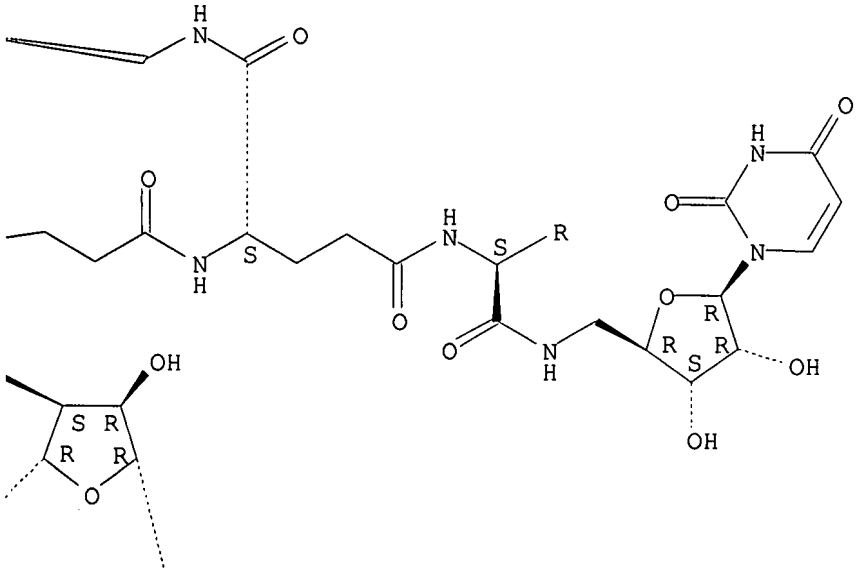


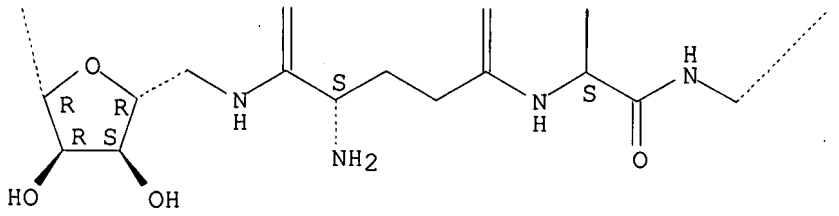
● HCl

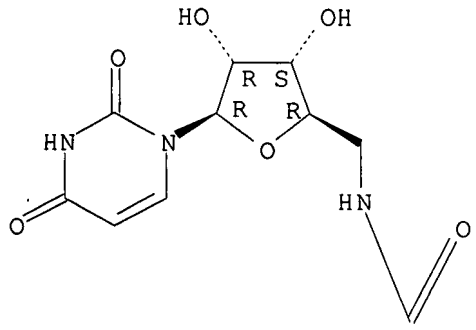
RN 380911-88-6 CAPLUS
CN L-Lysine, N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyinosin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyinosin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyuridin-5'-yl)-L-α-glutaminyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.









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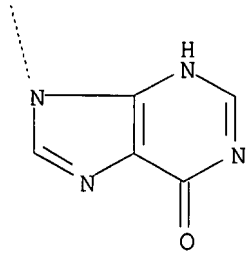

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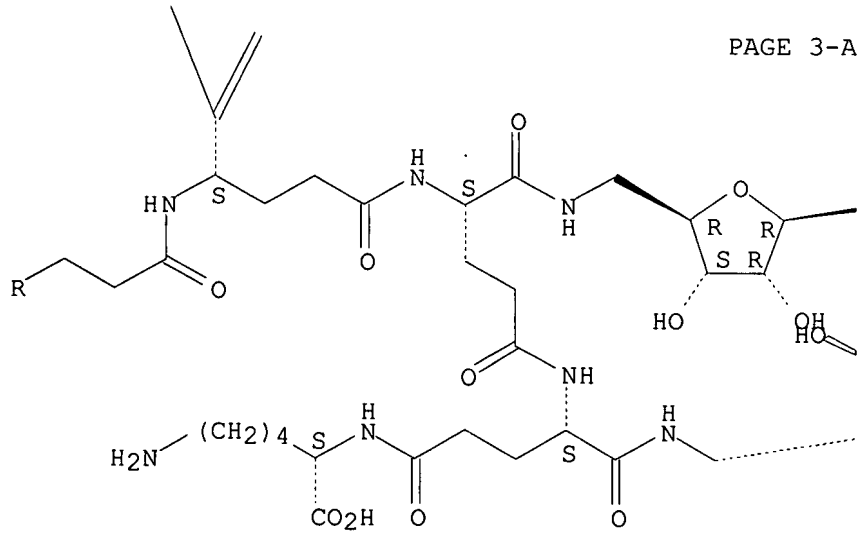
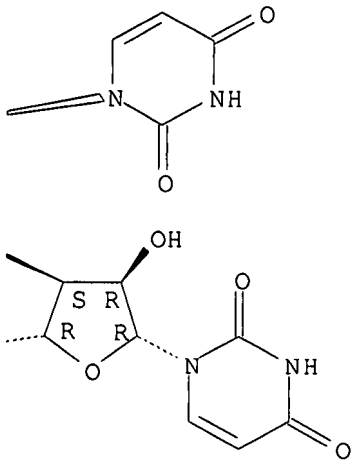


PAGE 3-B



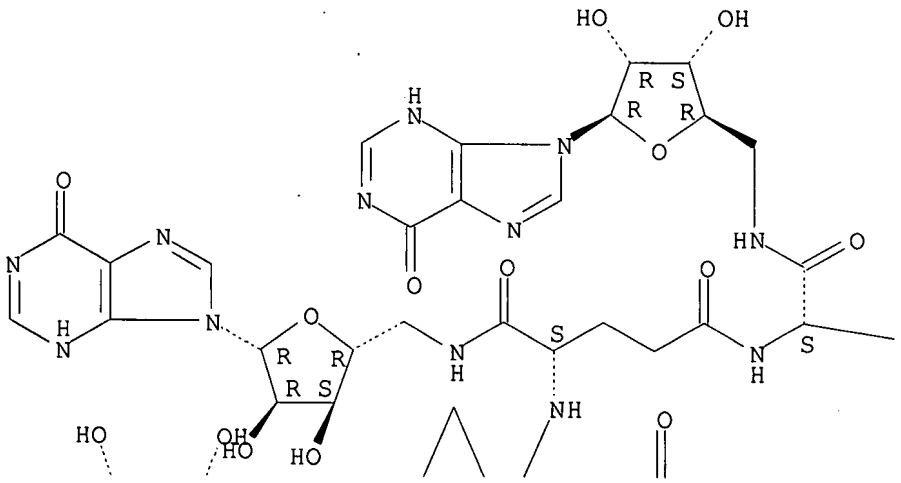
RN 380911-92-2 CAPLUS

CN L-Lysine, N-(5'-deoxyinosin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyinosin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyinosin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyinosin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyinosin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyinosin-5'-yl)-L-α-glutaminyl-N-(5'-deoxyinosin-5'-yl)-L-α-

glutaminyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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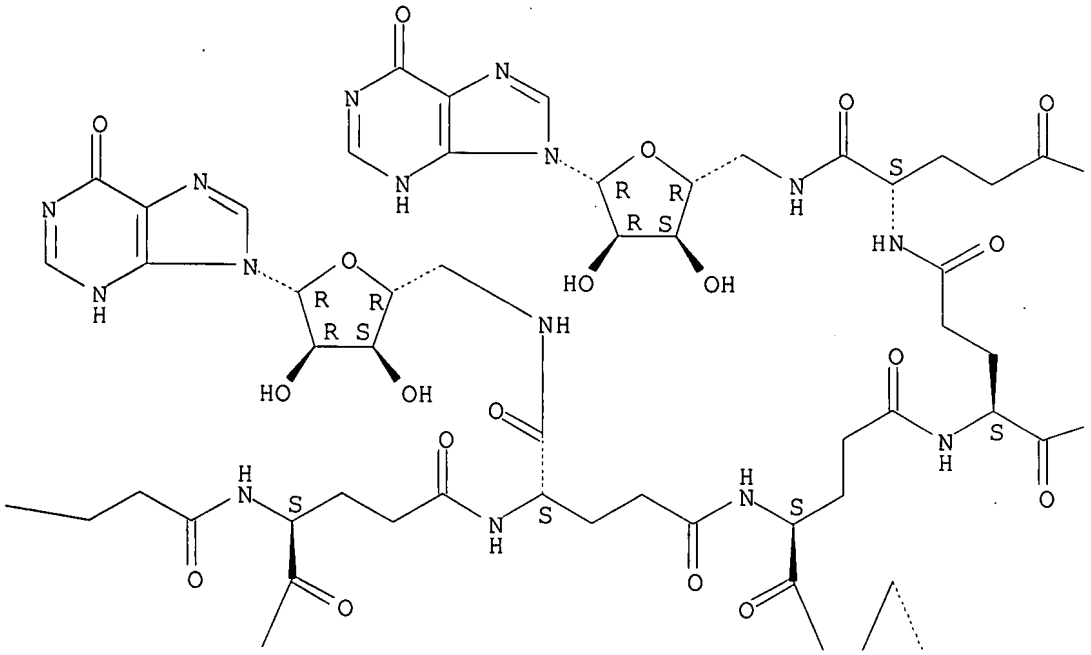

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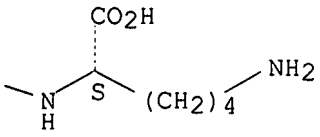

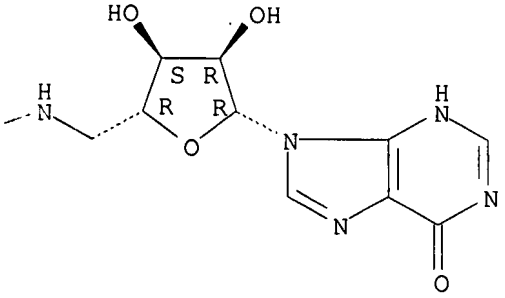

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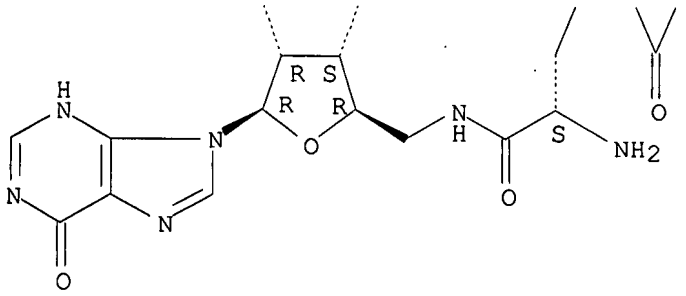

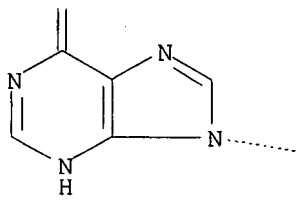

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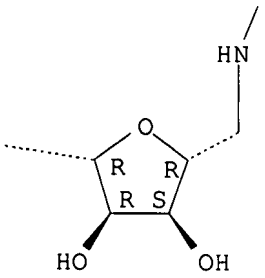
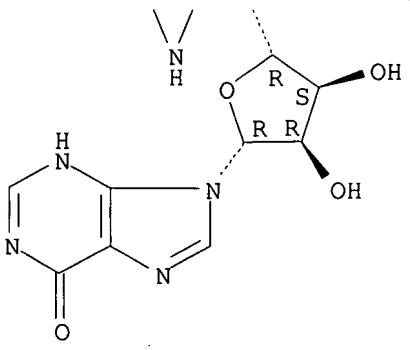




RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:626412 CAPLUS
DN 131:253322
TI Methods, kits and compositions pertaining to detection complexes for nucleic acid targets

IN Coull, James D.; Gildea, Brian D.; Hyldig-Nielsen, Jens J.
PA Boston Probes, Inc., USA
SO PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DT Patent
LA English
PAN.CNT 1

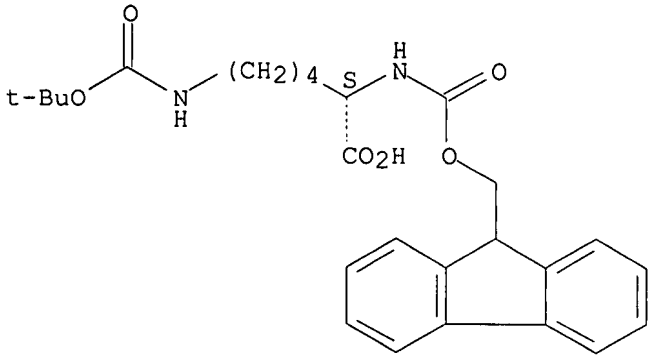
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	WO 9949293	A2	19990930	WO 1999-US6422	19990324
	WO 9949293	A3	20000406		
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TJ, TR, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9930125	A	19991018	AU 1999-30125	19990324
	EP 1064399	A2	20010103	EP 1999-911496	19990324
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002507434	T	20020312	JP 2000-538214	19990324
	US 6361942	B1	20020326	US 1999-275848	19990324
	US 6607889	B1	20030819	US 2001-867345	20010529 <--
PRAI	US 1998-79211P	P	19980324		
	US 1999-275848	A1	19990324		
	WO 1999-US6422	W	19990324		

AB This invention is directed to methods, kits and compns. which utilize Detection Complexes to detect or identify the presence, absence or quantity of a target mol. in sample of interest. A Detection Complex comprises at least two component polymers and at least one set of donor and acceptor moieties. To each of at least two component polymers is linked at least one moiety of a set of donor and acceptor moieties, such that formation of the complex facilitates transfer of energy between donor and acceptor moieties of each set in a manner which, in an assay, produces changes in detectable signal which can be correlated with the presence/absence of quantity of target sequence and/or target mol. of interest in the sample. The Detection Complexes and PCR detection Complexes of this invention are primarily designed to dissociate as a direct or indirect consequence of the hybridization of one or more segments of a component polymer to a target sequence of a target mol. Because the component polymers of a Detection Complex will preferably dissociate, the attached donor and acceptor moieties, which are independently attached to different polymers, can become far more separated in space as compared with unimol. Beacon probes such as Mol. Beacons or Linear Beacons. As a consequence, the efficiency of energy transfer will be far more substantially altered as compared with unimol. probes wherein the donor and acceptor moieties are linked to the same polymer and therefore cannot be infinitely separated in space. Thus, the Detection Complexes and PCR Detection Complexes of this invention possess a substantial comparative advantage over unimol. Beacon probes. In still another embodiment, this invention is directed to Substrate Detection Complexes which operate as a substrate for an enzyme to thereby generate changes in detectable signal in a target independent manner. At least one of the component polymers comprises a peptide nucleic acid (PNA), and the donor and acceptor moieties comprise a fluorophore (e.g., fluorescein) and a quencher (e.g., DABCYL), resp., for fluorescence resonance energy transfer.

IT 71989-26-9, N-α-(Fmoc)-N-ε-(t-boc)-L-Lysine-OH
RL: RCT (Reactant); RACT (Reactant or reagent)
(methods, kits and compns. pertaining to detection complexes for nucleic acid targets)

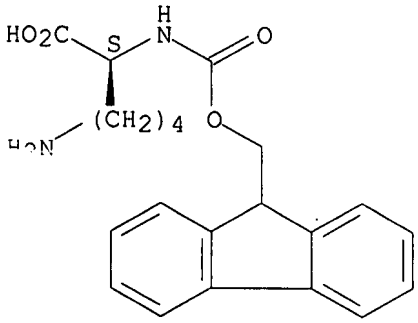
RN 71989-26-9 CAPLUS
CN L-Lysine, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



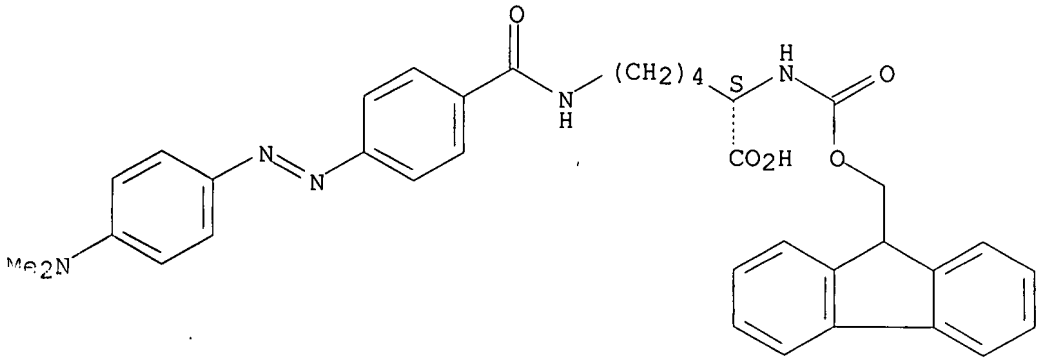
IT 105047-45-8P, N-α-(Fmoc)-N-ε-(NH2)-L-Lysine-OH 146998-27-8P, Fmoc-K(dabcyl)-OH
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(methods, kits and compns. pertaining to detection complexes for nucleic acid targets)
RN 105047-45-8 CAPLUS
CN L-Lysine, N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 146998-27-8 CAPLUS
CN L-Lysine, N6-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



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=> d his

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L2         83880 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 12:17:10 ON 10 OCT 2007
L3        107468 S L2
L4          1286 S L3 AND FMOC
L5            27 S L4 AND PNA
L6            27 DUP REM L5 (0 DUPLICATES REMOVED)
L7            27 S L6
L8             7 S L6 AND 2003/PY

=> s l8 and (alloc? or boc?)
         20834 ALLOC?
         19498 BOC?
L9           3 L8 AND (ALLOC? OR BOC?)

=> d l9 bib abs hitstr 1-3

L9   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2003:679388  CAPLUS
DN   139:381726
TI   Modulation of the Pharmacokinetic Properties of PNA: Preparation
     of Galactosyl, Mannosyl, Fucosyl, N-Acetylgalactosaminyl, and
     N-Acetylglucosaminyl Derivatives of Aminoethylglycine Peptide Nucleic Acid
     Monomers and Their Incorporation into PNA Oligomers
AU   Hamzavi, Ramin; Dolle, Frederic; Tavitian, Bertrand; Dahl, Otto; Nielsen,
     Peter E.
CS   Center for Biomolecular Recognition, Department of Medical Biochemistry
     and Genetics, University of Copenhagen, Copenhagen, DK-2200, Den.
SO   Bioconjugate Chemistry (2003), 14(5), 941-954
     CODEN: BCCHES; ISSN: 1043-1802
PB   American Chemical Society
DT   Journal
LA   English
OS   CASREACT 139:381726
GI
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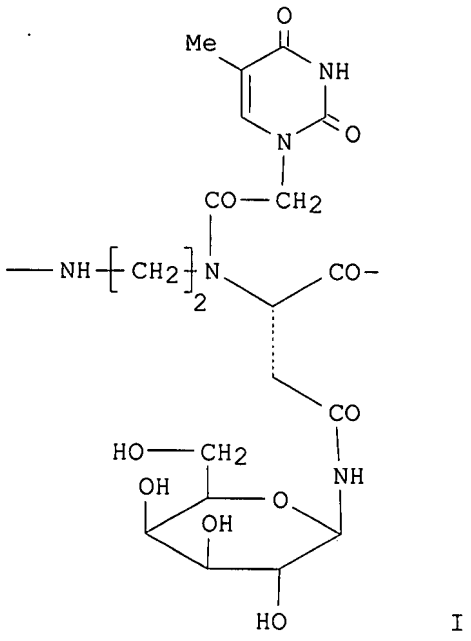


I

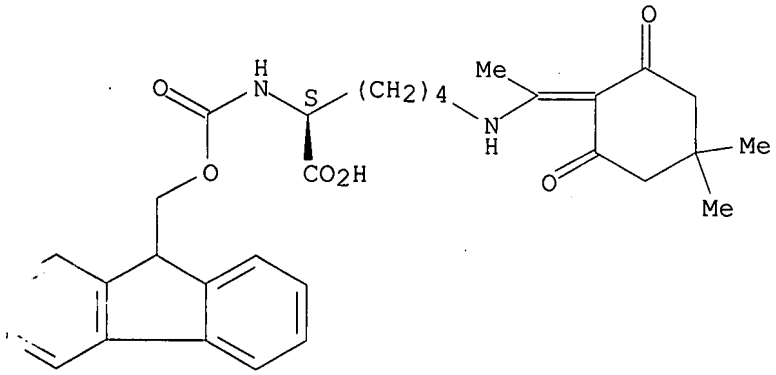
AB A series of N-(2-aminoethyl)-α-amino acid thymine peptide nucleic acid (PNA) monomers bearing glycosylated side chains in the α-amino acid position (e.g, I) have been synthesized. These include PNA monomers where glycine has been replaced by serine and threonine (O-glycosylated), derivs. of lysine and nor-alanine (C-glycosylated), and amide derivs. of aspartic acid (N-glycosylated). The Boc and Fmoc derivs. of these monomers were used for incorporation in PNA oligomers. Twelve PNA decamers containing the glycosylated units in one, two, or three positions were prepared, and the thermal stability (Tm) of their complexes with a complementary RNA was determined Incorporation of the glycosyl monomers reduced the duplex stability by 0-6° C per substitution. A cysteine was attached to the amino terminus of eight of the PNA decamers (Cys-CTCATACTCT-NH2) for easy conjugation to a [18F]radiolabeled N-(4-fluorobenzyl)-2-bromoacetamide. The in vivo biodistribution of these PNA oligomers was determined in rat 2 h after i.v. administration. Most of the radioactivity was recovered in the kidneys and in the urine. However, N-acetylgalactosamine (and to a lesser extent galactose and mannose)-modified PNAs were effectively targeting the liver (40-fold over unmodified PNA). Thus, the pharmacodistribution in rats of PNA oligomers can be profoundly changed by glycosylation. These results could be of great significance for PNA drug development, as they should allow modulation and fine-tuning of the pharmacokinetic profile of a drug lead.

IT 150629-67-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of glycosylated monomers for PNA synthesis and their effect on PNA/RNA hybridization or PNA biodistribution)

RN 150629-67-7 CAPLUS

CN L-Lysine, N6-[1-(4,4-dimethyl-2,6-dioxocyclohexylidene)ethyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.

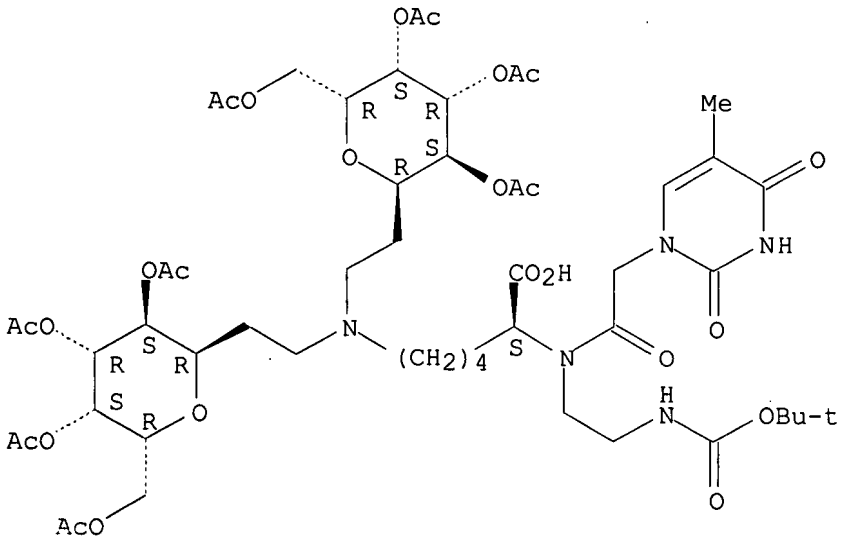


IT 612491-20-0P 612491-21-1P 612491-22-2P
612491-23-3P 612491-24-4P 612491-25-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of glycosylated monomers for PNA synthesis and their effect on PNA/RNA hybridization or PNA biodistribution)

RN 612491-20-0 CAPLUS

CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N6,N6-bis(1,3,4,5-tetra-O-acetyl-2,6-anhydro-7,8-dideoxy-D-glycero-L-galacto-octitol-8-yl)- (9CI) (CA INDEX NAME)

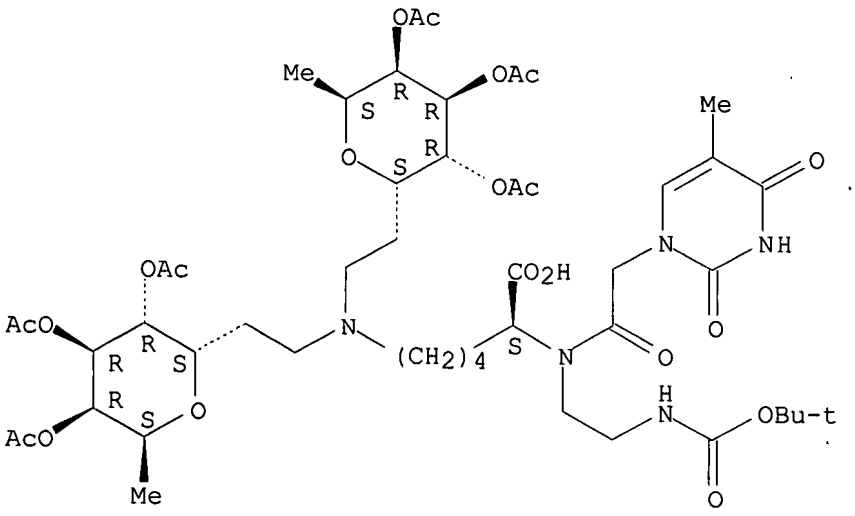
Absolute stereochemistry.



RN 612491-21-1 CAPLUS

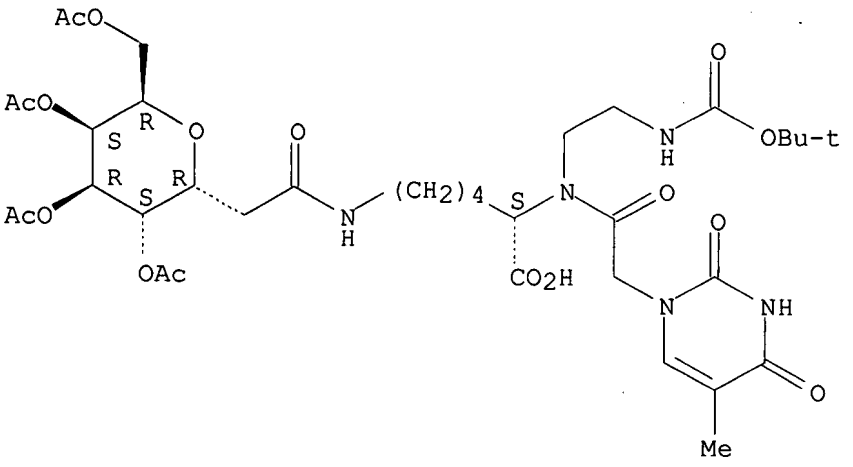
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N6,N6-bis(3,4,5-tri-O-acetyl-2,6-anhydro-1,7,8-trideoxy-L-glycero-D-galacto-octitol-8-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



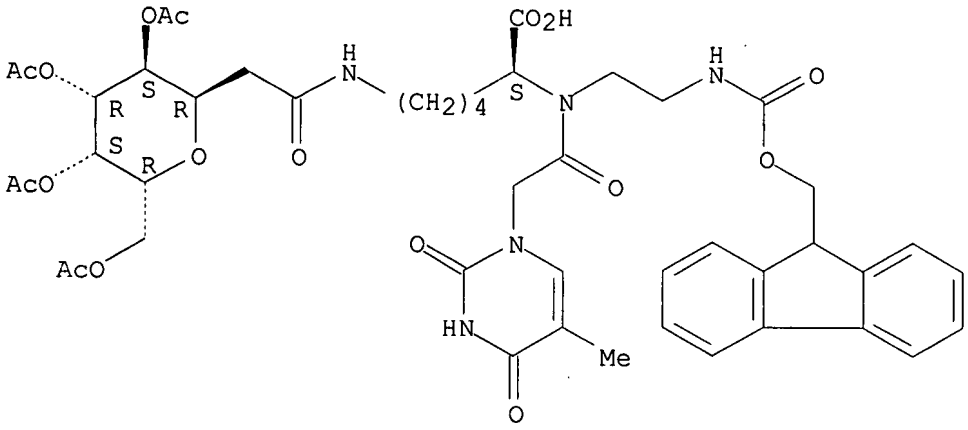
RN 612491-22-2 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N6-(4,5,6,8-tetra-O-acetyl-3,7-anhydro-2-deoxy-D-glycero-L-gluco-octonoyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



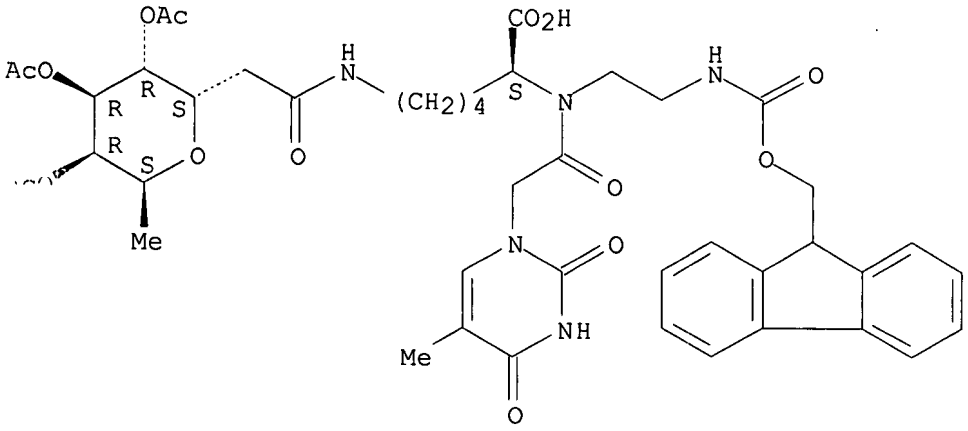
RN 612491-23-3 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]ethyl]-N6-(4,5,6,8-tetra-O-acetyl-3,7-anhydro-2-deoxy-D-glycero-L-gluco-octonoyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



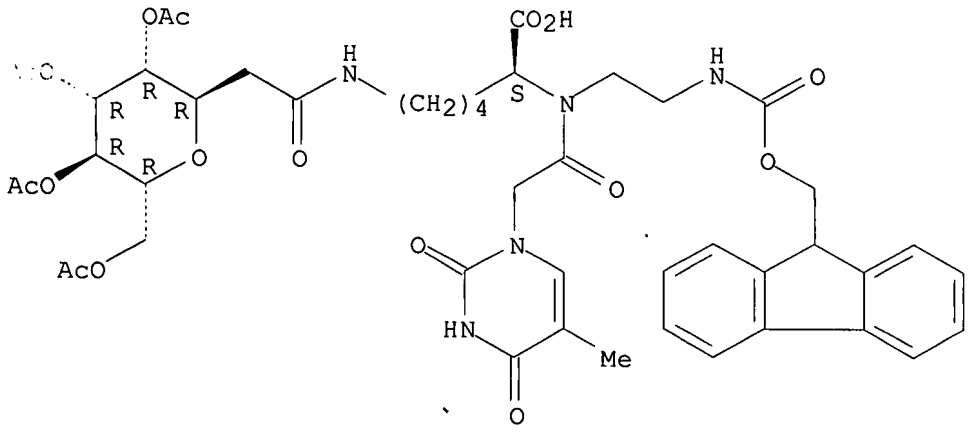
RN 612491-24-4 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]ethyl]-N6-(4,5,6-tri-O-acetyl-3,7-anhydro-2,8-dideoxy-L-glycero-D-gluco-octonoyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 612491-25-5 CAPLUS
CN L-Lysine, N2-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N2-[2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]ethyl]-N6-(4,5,6,8-tetra-O-acetyl-3,7-anhydro-2-deoxy-D-glycero-D-talo-octonoyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

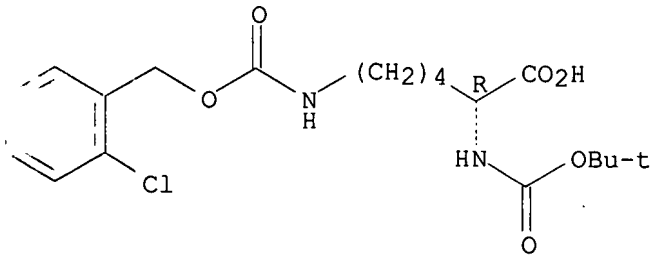
L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:246878 CAPLUS
DN 139:101403
TI Fast, solid-phase synthesis of chiral peptide nucleic acids with a high optical purity by a submonomeric strategy
AU Sforza, Stefano; Tedeschi, Tullia; Corradini, Roberto; Ciavardelli, Domenico; Dossena, Arnaldo; Marchelli, Rosangela
CS Dipartimento di Chimica Organica ed Industriale, Universita di Parma, Parma, 43100, Italy
SO European Journal of Organic Chemistry (2003), (6), 1056-1063
CODEN: EJOCFK; ISSN: 1434-193X
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 139:101403
AB The solid-phase synthesis of chiral peptide nucleic acids (PNAs) usually results in partial epimerization of the products, since the α-nitrogen atom of the amino acid is involved in an amidic bond. It is also time-consuming, since all the chiral monomers bearing different nucleobases have to be independently synthesized. In order to prevent racemization and to speed up the synthetic procedure we adopted a submonomeric approach by using a solid-phase, Boc-based (Boc = tert-butoxycarbonyl) PNA synthesis in which the chiral backbone orthogonally Nα- Fmoc-protected (submonomer) (Fmoc = 9-fluorenylmethyloxycarbonyl) was first linked to the growing chain on the resin, followed by Fmoc -deprotection and derivatization with the carboxymethylnucleobase. The submonomer bearing the D-lysine residue was designed by protecting the Nα-(aminoethyl)amino acid moiety with an Fmoc protecting group, compatible with standard Boc chemical, and with the use of an MBHA-PS resin, normally employed for PNA synthesis. Different synthetic pathways towards the desired submonomer were studied by using the amino acid D-lysine as a chiral synthon, obtaining a fast method leading to a high yield and an excellent enantiomeric excess of the submonomer. The solid-phase submonomeric reaction conditions were optimized for the synthesis of a thyminyl PNA dimer and then used to synthesize two different chiral PNAs. In this way two advantages were obtained: a lower degree of racemization in the coupling step during the solid-phase synthesis and the possibility of using the same submonomer for every different nucleobase. All the D-lysine-based chiral PNAs were obtained in good yields and, as compared with PNAs synthesized by other coupling methods, showed the highest optical purity reported so far.
RN 57096-11-4
RL: RCT (Reactant); RACT (Reactant or reagent)

(asym. solid-phase synthesis of D-lysine-based chiral peptide nucleic acids with by submonomeric strategy)

RN 57096-11-4 CAPLUS

CN D-Lysine, N6-[[(2-chlorophenyl)methoxy]carbonyl]-N2-[(1,1-dimethylethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



IT 548490-53-5P 548490-54-6P

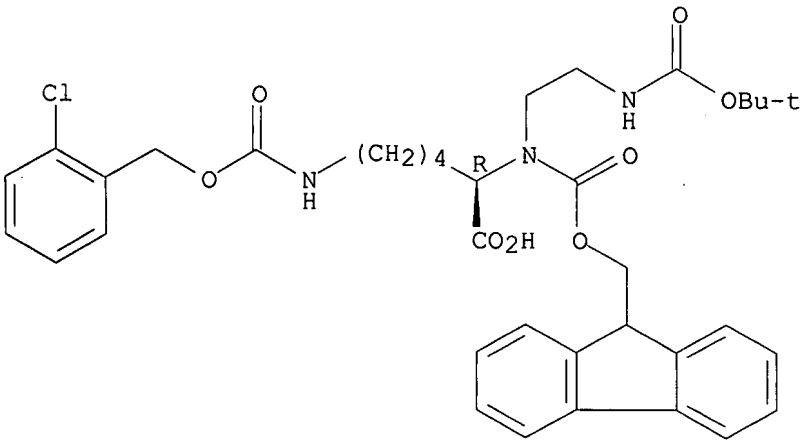
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(asym. solid-phase synthesis of D-lysine-based chiral peptide nucleic acids with by submonomeric strategy)

RN 548490-53-5 CAPLUS

CN 13-Oxa-2,8,11-triazapentadecanoic acid, 7-carboxy-8-[(9H-fluoren-9-ylmethoxy)carbonyl]-14,14-dimethyl-12-oxo-, 1-[(2-chlorophenyl)methyl] ester, (7R)- (9CI) (CA INDEX NAME)

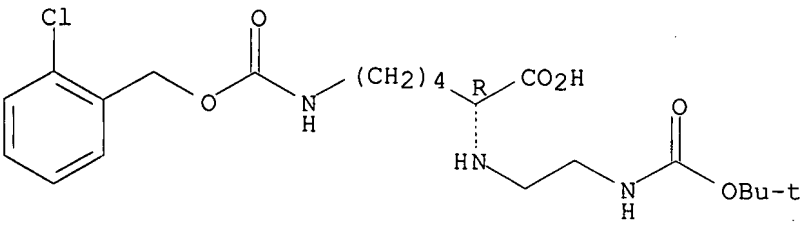
Absolute stereochemistry.



RN 548490-54-6 CAPLUS

CN 13-Oxa-2,8,11-triazapentadecanoic acid, 7-carboxy-14,14-dimethyl-12-oxo-, 1-[(2-chlorophenyl)methyl] ester, (7R)- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:626412 CAPLUS
DN 131:253322
TI Methods, kits and compositions pertaining to detection complexes for nucleic acid targets
IN Coull, James D.; Gildea, Brian D.; Hyldig-Nielsen, Jens J.
PA Boston Probes, Inc., USA
SO PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9949293	A2	19990930	WO 1999-US6422	19990324
	WO 9949293	A3	20000406		
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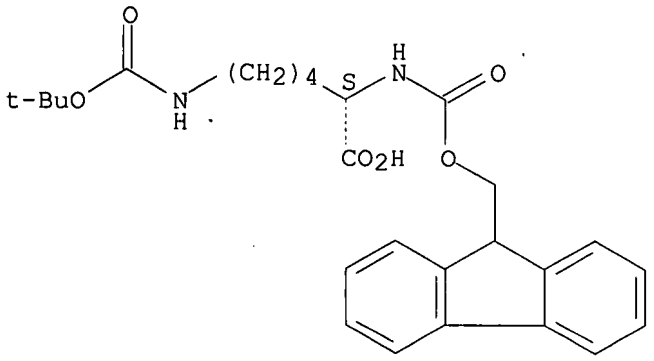
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9930125	A	19991018	AU 1999-30125	19990324
	EP 1064399	A2	20010103	EP 1999-911496	19990324
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002507434	T	20020312	JP 2000-538214	19990324
	US 6361942	B1	20020326	US 1999-275848	19990324
	US 6607889	B1	20030819	US 2001-867345	20010529 <--
PRAI	US 1998-79211P	P	19980324		
	US 1999-275848	A1	19990324		
	WO 1999-US6422	W	19990324		

AB This invention is directed to methods, kits and compns. which utilize Detection Complexes to detect or identify the presence, absence or quantity of a target mol. in sample of interest. A Detection Complex comprises at least two component polymers and at least one set of donor and acceptor moieties. To each of at least two component polymers is linked at least one moiety of a set of donor and acceptor moieties, such that formation of the complex facilitates transfer of energy between donor and acceptor moieties of each set in a manner which, in an assay, produces changes in detectable signal which can be correlated with the presence/absence of quantity of target sequence and/or target mol. of interest in the sample. The Detection Complexes and PCR detection Complexes of this invention are primarily designed to dissociate as a direct or indirect consequence of the hybridization of one or more segments of a component polymer to a target sequence of a target mol. Because the component polymers of a Detection Complex will preferably dissociate, the attached donor and acceptor moieties, which are independently attached to different polymers, can become far more separated in space as compared with unimol. Beacon probes such as Mol. Beacons or Linear Beacons. As a consequence, the efficiency of energy transfer will be far more substantially altered as compared with unimol. probes wherein the donor and acceptor moieties are linked to the same polymer and therefore cannot be infinitely separated in space. Thus, the Detection Complexes and PCR Detection Complexes of this invention possess a substantial comparative advantage over unimol. Beacon probes. In still another embodiment, this invention is directed to Substrate Detection Complexes which operate as a substrate for an enzyme to thereby generate changes in detectable signal in a target independent manner. At least one of the component polymers comprises a peptide nucleic acid (PNA), and the donor and

acceptor moieties comprise a fluorophore (e.g., fluorescein) and a quencher (e.g., DABCYL), resp., for fluorescence resonance energy transfer.

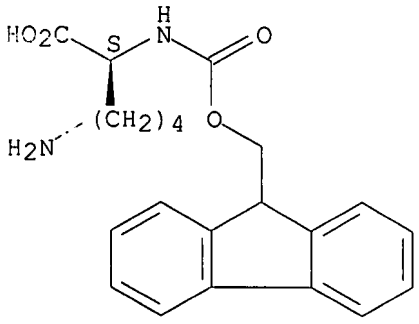
IT 71989-26-9, N-α-(Fmoc)-N-ε-(t- boc)-L-Lysine-OH
RL: RCT (Reactant); RACT (Reactant or reagent)
(methods, kits and compns. pertaining to detection complexes for nucleic acid targets)
RN 71989-26-9 CAPLUS
CN L-Lysine, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



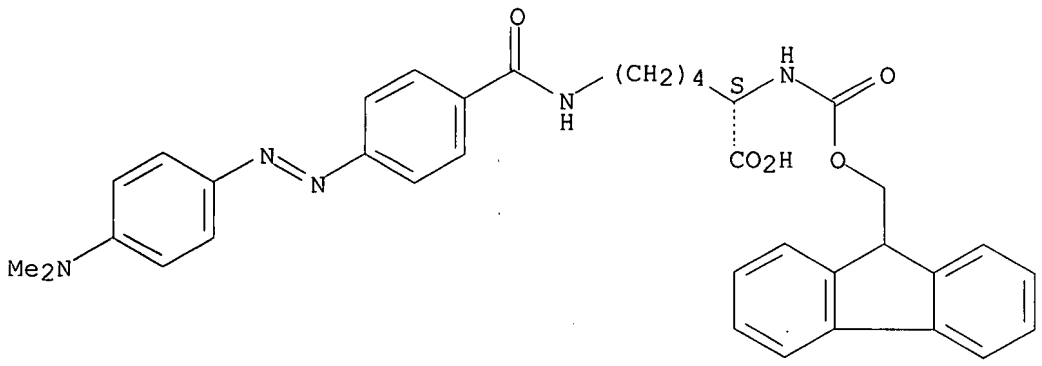
IT 105047-45-8P, N-α-(Fmoc)-N-ε-(NH2)-L-Lysine-OH 146998-27-8P, Fmoc-K(dabcyl)-OH
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(methods, kits and compns. pertaining to detection complexes for nucleic acid targets)
RN 105047-45-8 CAPLUS
CN L-Lysine, N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 146998-27-8 CAPLUS
CN L-Lysine, N6-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.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=> d his

     (FILE 'HOME' ENTERED AT 13:14:04 ON 10 OCT 2007)

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     10 OCT 2007
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L2           127 S L1 AND LYSINE (4A) FMOC
L3            94 S L2 AND (BOC? OR ALLOC?)
L4            87 S L3 AND CARBOXYLIC
L5            87 DUP REM L4 (0 DUPLICATES REMOVED)
L6            23 S L5 AND 2003/PY
L7            64 S L5 NOT L6
L8             7 S L5 AND FREE (4A) CARBOXYLIC ACID
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